

**OCCUPATIONAL SAFETY  
AND HEALTH STANDARDS BOARD**

2520 Venture Oaks, Suite 350  
Sacramento, CA 95833  
(916) 274-5721  
FAX (916) 274-5743  
Website address [www.dir.ca.gov/oshsb](http://www.dir.ca.gov/oshsb)



Attachment No. 2

**INITIAL STATEMENT OF REASONS****CALIFORNIA CODE OF REGULATIONS**

Title 8: Chapter 4, Subchapter 7, Article 107, Section 5155  
of the General Industry Safety Orders

**Airborne Contaminants****SUMMARY**

Pursuant to California Labor Code Section 142.3, the Occupational Safety and Health Standards Board (Standards Board) may adopt, amend, or repeal occupational safety and health standards or orders. Section 142.3 permits the Board to prescribe, where appropriate, suitable protective equipment and control or technological procedures to be used in connection with occupational hazards and provide for monitoring or measuring employee exposure for their protection. California Labor Code Section 144.6 requires that the Standards Board, when dealing with standards for toxic materials and harmful physical agents, adopt standards which most adequately assure, to the extent feasible, that no employee suffer material impairment of health or functional capacity even if such employee has regular exposure to the hazard for the period of one's working lifetime. This section also requires that the Standards Board base standards on research, demonstrations, experiments and other information as may be appropriate. Labor Code Section 144.6 also lists other considerations such as the latest scientific literature, the reasonableness of the standards, and the experience gained in this and other health and safety laws.

Existing Section 5155 establishes minimum requirements for controlling employee exposure to specific airborne contaminants. This section specifies several types of airborne exposure limits, requirements for control of skin and eye contact, workplace environmental monitoring through measurement or calculation, and medical surveillance requirements. On an ongoing basis with the assistance of an advisory committee, the Division develops proposals to amend these airborne exposure limits known as Permissible Exposure Limits (PELs). This ongoing review is necessary to take into account changes in the information available to assess the effects of exposures to airborne substances that can be present in the workplace.

**SPECIFIC PURPOSE AND FACTUAL BASIS OF THE PROPOSED ACTION**

In accordance with Labor Code Section 144.6, the purpose of this amendment to Section 5155 is to regulate employee exposure to toxic materials such that, to the extent feasible, the health or functional capacity of the employee is not materially impaired. This proposal was developed by

the Division of Occupational Safety and Health (Division) pursuant to the Division's independent mandate to maintain surveillance and propose standards to the Standards Board in accordance with Labor Code Section 147.1. The Division has developed and presented similar proposals to the Standards Board in the past, normally at approximately three-year intervals. The Division relies in part on changes made to the American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs) to indicate substances to be considered for change. The development of this proposal is consistent with past practice and uses the accumulated changes of the ACGIH for the years 1997, 1998, 1999, 2000, and 2001. The ACGIH changes to TLVs are used to produce the base list for consideration for several reasons. The ACGIH TLVs are the most comprehensive single source of exposure limits available, the ACGIH TLVs are substantiated by available documentation, and there is ongoing review of the TLVs by the ACGIH with annual revision.

The Division, in developing the current and past proposals, has convened advisory committees to consider and make recommendations on the substances in the base list. The Airborne Contaminants Advisory Committee (Committee), which considered substances for development of this proposal, met between May 2001 and January 2004. The Committee independently evaluated the changes made to TLVs using the ACGIH documentation, presentations and additional documentation provided by interested parties, documents referred to in the ACGIH documentation, and other documents provided by the members of the Committee.

In many cases, the Committee's recommendations agreed with the rationale and limits set by the ACGIH. In some cases, the Committee made recommendations not in agreement with the ACGIH limits. In other cases, the Committee used a different basis than the one used by the ACGIH. The Committee's recommendations were based on the consensus opinion among the members. After the Committee made its recommendations, the Division held additional public advisory meetings on those substances where the Committee made recommendations that differed from the TLV limits. The purpose of these meetings was to solicit additional information on the impacts of implementing these generally lower levels and their scientific basis. In some cases the levels recommended by the committee were changed based on information received in this additional review.

The following is a discussion of the specific changes to Table AC-1 in the order that they occur in the proposal. The ACGIH documents, minutes of the Advisory Committee meetings, other documents and reasons listed below form the factual basis for this proposal.

The Permissible Exposure Limit (PEL) for Acetone is proposed to be lowered from 750 parts per million (ppm) to 500 ppm (1780 mg/M<sup>3</sup> and 1200 mg/M<sup>3</sup>, respectively). The current Short Term Exposure Limit (STEL) is also proposed to be lowered from 1000 ppm to 750 ppm (2400 mg/M<sup>3</sup> and 1780 mg/M<sup>3</sup>, respectively). This limit was adopted by the ACGIH in 1997 and was also observed in the Nelson, et al. study. The Committee recommended lower limits of 250 ppm and 500 ppm STEL based on irritation observed in the Nelson, et al. study. However, at the March 30, 2004, advisory meeting, John Bankston of the American Chemistry Council Acetone Panel stated that the Nelson, et al. study used naive test subjects making it difficult for the study to find the true level for inducing irritation. More recent studies with better study design did not

confirm the Nelson results and showed a higher irritation threshold. As a result, it is proposed to amend the limits to be consistent with the ACGIH. The proposed change is necessary to protect employees from these irritant effects.

The time-weighted average PEL for Beryllium, and beryllium compounds as Be is proposed to be lowered from 0.002 mg/M<sup>3</sup> (2 ug/M<sup>3</sup>) to 0.2 ug/M<sup>3</sup> as total dust analyzed for beryllium. A PEL of 0.1 ug/M<sup>3</sup> was originally recommended by the Committee that differs from both the current ACGIH TLV of 2 ug/M<sup>3</sup> as total dust and the 2001 proposed change to the ACGIH TLV of 0.2 ug/M<sup>3</sup> as an inhalable fraction. In 2005, the ACGIH draft TLV documentation was amended to support a new Notice of Intended Change (NIC) for the TLV to 0.02 ug/M<sup>3</sup>. The amended draft documentation and NIC lends support to the proposed lowering of the PEL for beryllium from 2 to 0.2 ug/M<sup>3</sup>. Because the amended NIC and draft TLV documentation for beryllium was only recently released during the preparation of the present rulemaking proposal, the Division plans to include it in the next air contaminants advisory committee process to determine if further changes to the PEL for beryllium are necessary. The Airborne Contaminants Advisory Committee based its recommendation primarily on a 1996 study by Kreiss et al., which studied the levels of beryllium disease among 136 workers at a beryllium ceramics plant. The study found that 5.9% of employees were sensitized to beryllium as indicated by the beryllium lymphocyte proliferation blood test, and that 4.4% of employees had granulomatus disease on transbronchial lung biopsy. This plant took 4,133 breathing zone samples with a median value of 0.3 ug/M<sup>3</sup>. The Committee also referred to a study of community cases in the vicinity of beryllium production plant, Eisenbud 1949, where beryllium disease had been observed with 24-hour exposures estimated near 0.01 ug/M<sup>3</sup>. During the March 30, 2004, advisory meeting, several differing opinions were raised for the Committee's consideration: the use of subclinical chronic beryllium disease as an end point, problems with feasibility of control at 0.1ug, Eisenbud study data errors, and the ACGIH use of an "inhalable" sampler. In response to these comments, the originally proposed PEL of 0.1 ug/M<sup>3</sup> has been modified to 0.2 ug/M<sup>3</sup> sampled as total dust. The proposed limit is necessary to prevent sensitization and beryllium disease. The proposed revised PEL-TWA renders duplicative the existing PEL-STEL (30-minute), because complying with the 8-hour TWA of 0.2 ug/M<sup>3</sup> necessarily results in compliance with the existing 30-minute PEL-STEL. The text of existing footnote (p) associated with the PEL-STEL for beryllium is proposed to be deleted and the footnote reserved for possible future use.

A new PEL for Bis (Dimethylaminoethyl) ether (DMAEE) is proposed at 0.05 ppm (0.328 mg/M<sup>3</sup>) and a STEL of 0.15 ppm (0.983 mg/M<sup>3</sup>). This limit was recommended by the Committee and is the same as the ACGIH TLV adopted in 2000. The proposed limit is based on a 14-week inhalation study of rats showing signs of eye and respiratory tract irritation at 0.23 ppm, with periodic swelling at 0.23 ppm. A skin notation is also proposed based on severe effects on the skin and eyes of rabbits and kidney effects in rabbits with dermal application. The proposed limit is supported by the ACGIH document for bis (dimethylaminoethyl) ether. The proposed change is necessary to protect employees from these irritant effects.

The PEL for 2-Butoxyethanol is proposed to be lowered from 25 ppm (120 mg/M<sup>3</sup>) to 20 ppm (80 mg/M<sup>3</sup>) based on eye and nose irritation in human volunteer exposures at 200 ppm, Carpenter et al. Two human volunteers exposed to 113 ppm 2-butoxyethanol for four hours

experienced nasal and ocular irritation, a disagreeable metallic taste, and a slight increase in nasal mucous discharge. Four to six hours later, one of these men reported that he felt as though he had "smoked too many cigarettes;" although none had been used. The important finding here is for the 113 ppm four hour human exposure. The Committee considered the hemolysis seen in some animal species, but agreed with the conclusion drawn by the ACGIH in its documentation for 2-Butoxyethanol, that hemolysis was not a significant consideration for human exposure. The Committee originally chose 10 ppm because it wanted to provide a margin of safety of 20 that would produce no effects, as opposed to the effects seen at 200 and 113 by Carpenter et al. This differed from the 20 ppm TLV adopted by the ACGIH in 1999. Richard Corley of the Center for Biological Monitoring & Modeling speaking on behalf of the American Chemistry Council Ethylene and Propylene Glycol Ethers Panel offered a differing opinion on the Carpenter study at the March 30, 2004, advisory meeting and recommended a level of 20 ppm consistent with the ACGIH by noting that newer studies did not show irritation at levels higher than in these two studies. The Division has chosen to accept the suggestion of Mr. Corley and propose an amended PEL of 20 ppm consistent with the current ACGIH TLV. The proposed limit is necessary to protect employees from the eye and nose irritation.

For Coal Tar Pitch Volatiles the table entry and associated footnote is proposed to be amended to make it at least as effective as its federal OSHA counterpart. It is proposed to modify the language of the existing entry for "coal tar pitch volatiles" in Table AC-1 of Section 5155 to the extent of eliminating the Chemical Abstracts Registry Number that refers only to residue from the high temperature distillation of coal tar. This change is necessary to clarify that the standard applies to airborne mixtures of chemicals from a number of sources. It is proposed to modify existing footnote "i" in Table AC-1 of Section 5155 so that it is substantively identical to 29 CFR 1910.1002 in clarifying what substances and processes are included in the term "coal tar pitch volatiles." The amendment is necessary to make the language of the standard at least as effective as the federal OSHA counterpart by including reference to source materials other than coal tar, consistent with the federal OSHA standard at 29 CFR 1910.1002.

The PEL for Crotonaldehyde is proposed to be lowered from 2 ppm time-weighted average to 0.3 ppm ceiling with a Skin designation based on irritation effects seen in workers at 1 ppm. The skin designation is based on dermal LD50 values. The proposed limit was recommended by the Committee and is the same as the TLV adopted by the ACGIH in 1999. The proposed limit is supported by the ACGIH document for crotonaldehyde. The proposed change is necessary to protect employees from these irritant effects.

The PEL for Epichlorohydrin is proposed to be lowered from 2 ppm (7.6 mg/M<sup>3</sup>) to 0.05 ppm (0.19 mg/M<sup>3</sup>) based on reproductive toxicity at levels above 5 ppm seen in laboratory animals. The proposed limit was recommended by the Committee and differs from the 0.5 ppm TLV adopted by the ACGIH in 1997. The Committee noted that the International Agency for Research on Cancer (IARC) considers this substance a probable human carcinogen, and that the reproductive and respiratory effects seen had been confirmed in multiple studies cited in the ACGIH document. The Committee members thought that there was an insufficient margin of safety between the reproductive effects seen in animals and the ACGIH threshold limit value and recommended the 0.05 ppm limit on the basis that it would reduce the risk of these reproductive

outcomes. There were comments received from Susan Ripple at the March 30, 2004, advisory meeting regarding sampling and analytical methods for epichlorohydrin. Ms. Ripple stated that there were two methods with limits of detection at 0.01 ppm for this substance. There were no comments received regarding the scientific basis for the proposed limit. The proposed change is necessary to control reproductive and respiratory effects and the possibility of carcinogenic effects.

The PEL for Glutaraldehyde is proposed to be lowered from a ceiling limit of 0.2 ppm ( $0.82 \text{ mg/M}^3$ ) to a ceiling limit of 0.05 ppm ( $0.2 \text{ mg/M}^3$ ), the same as the ACGIH TLV since 1997. The documentation of the TLV notes that it may not protect susceptible workers from sensitization or an allergic reaction. The Committee initially proposed a level of 0.015 ppm. However, in a series of 3 supplemental advisory meetings held in 2004, the 0.05 ppm level based on ACGIH documentation was recommended and considered to be feasible among a wide range of employers using engineering controls based upon statements by users of glutaraldehyde. The 2004 advisory group further recommended an informational footnote on hazards and control of exposures to glutaraldehyde be added to Table AC-1 in recognition of the potential risk of sensitization and asthma remaining to employees at the proposed PEL. The 2004 advisory group also recommended users of glutaraldehyde be given time to achieve compliance with the proposed ceiling limit of 0.05 ppm by means of engineering controls. It is therefore further proposed to provide a 2-year period during which the PEL would be 0.05 ppm as an 8-hour time-weighted average rather than a ceiling limit. The necessity of adding these 2 footnotes and proposing a 0.05 ppm ceiling limit was further supported by the 2004 letters from Thomas Tremble and Susan Ripple. The proposed change is necessary to reduce the risk of occupational asthma posed by workplace exposure to glutaraldehyde.

The PEL for Hexachlorobenzene is proposed to be lowered from  $0.025 \text{ mg/M}^3$  to  $0.002 \text{ mg/M}^3$  based on hepatic and neurological effects. Several studies have demonstrated excesses of hepatic tumors in different species. The proposed limit is recommended by the Committee and is the same as the TLV adopted by the ACGIH in 1999. The proposed limit is supported by the ACGIH document for hexachlorobenzene. The proposed change is necessary to protect employees from these hepatic and neurological effects.

The PEL for n-Hexane is proposed to be changed by adding a Skin designation. A skin designation is proposed based on observations of human peripheral neuropathy after contact with n-hexane. The metabolite of n-hexane, methyl n-butyl ketone has also shown this effect. The proposed limit is recommended by the Committee and is the same as the TLV adopted by the ACGIH in 1998. The proposed "Skin" designation is supported by the ACGIH document for n-hexane. The proposed change is necessary to protect employees from peripheral neuropathy.

A new PEL for 1-Hexene is proposed at 50 ppm ( $180 \text{ mg/M}^3$ ) based on an estimated No Observed Adverse Effect Level (NOAEL) of 1000 ppm in rats for body weight loss. The proposed limit is recommended by the Committee and is the same as the TLV adopted by the ACGIH in 1998. The proposed limit is supported by the ACGIH document for 1-hexene. The proposed change is necessary to protect employees from these effects.

The PEL for Methyl bromide is proposed to be lowered from 5 ppm (20 mg/M<sup>3</sup>) to 1 ppm (3.88 mg/M<sup>3</sup>). The proposed limit is based on the observation of hyperplasia of the basal cells, focal thinning of the olfactory epithelium, and occasional cyst like glandular structures in the sub mucosa at 3 ppm in rats. The 1 ppm limit for methyl bromide was adopted by the ACGIH in 1997, and is consistent with the recommendation of the Committee. The proposed limit is supported by the ACGIH document for methyl bromide and is necessary to protect employees from the effects noted.

The PEL for Methyl 2-cyanoacrylate is proposed to be changed from 2 ppm (8 mg/M<sup>3</sup>) to 0.2 ppm (0.908 mg/M<sup>3</sup>) and the current STEL of 4 ppm is proposed to be deleted. This change is based on observations of nasal irritation in a controlled exposure study. This change was adopted by ACGIH in 1998 and is consistent with the recommendation of the Committee. The proposed limit is supported by the ACGIH document for methyl 2-cyanoacrylate and is necessary to protect employees from this effect.

The PEL for Methyl methacrylate is proposed to be changed from 100 to 50 ppm (410 to 205 mg/M<sup>3</sup>). The change to this level was adopted by ACGIH in the year 2000 based upon observations of pulmonary edema in male rats exposed to 116 ppm over a 3 month period and based upon numerous workplace studies identifying human pulmonary deficits after repeated exposures at concentrations greater than 50 ppm. Changes in olfactory (smell) function have also been associated with workplace exposures to methyl methacrylate. The Committee recommended a change in the PEL to 20 ppm based primarily on the study of Marez (1993) which identified cross-shift pulmonary function declines in workers with an average exposure to methyl methacrylate of approximately 20 ppm. At a meeting of the Committee on March 12, 2004, representatives of the Methacrylate Producers Association (MPA) questioned the accuracy of the exposure measurements and the significance of the health effects identified by Marez. The minutes of the March 12 meeting indicate that the MPA representative said that company annual physical examinations of the employees in the study did not find any chronic or major effects on the workers evaluated by Marez. However, these and other similar medical findings by producer companies for these and other similarly exposed workers were not published in the scientific literature. On March 30, 2004, there was additional discussion between Division staff and representatives of the MPA on the scientific basis for the PEL recommendation of 20 ppm. In light of the questions raised by the Methacrylate Producers Association about the validity of the conclusion of Marez, the Division is proposing to adopt the ACGIH TLV of 50 ppm as a time-weighted average for methyl methacrylate. The ACGIH Short Term Exposure Limit (STEL) of 100 ppm (410 mg/M<sup>3</sup>) is also proposed to be adopted. The proposed changes are necessary to reduce the risk of pulmonary and olfactory effects among workers exposed to methyl methacrylate.

The PEL for Molybdenum, soluble compounds, as Mo of 5 mg/M<sup>3</sup> total dust is proposed to be replaced by a respirable fraction limit of 0.5 mg/M<sup>3</sup> based on alveolar/bronchiolar epithelium metaplasia observed in mice at 10 mg/M<sup>3</sup> by Chan, P.C, et al. The proposed limit of 0.5 mg/M<sup>3</sup> was adopted by the ACGIH in 2001. The proposed limit is different from a lower recommended limit by the Committee. The Committee referred to the Chan study and noted that the clear adverse effects noted in mice at 10 mg/M<sup>3</sup> had not been accounted for in the ACGIH

recommendation. The Committee also noted that the Chan study showed significant levels of lung cancers in male mice at 10 mg/M<sup>3</sup>. During the March 30, 2004, advisory meeting Gary Von Riper noted the molybdenum used in the Chan study had been "micronized" and was much more potent at producing harmful effects than the same material with larger particle size distributions that are normally found in occupational settings. Based on this additional advisory opinion, the 0.5 mg/M<sup>3</sup> level based on the ACGIH documentation is recommended. The proposed change is necessary to prevent adverse pulmonary effects observed in laboratory animals.

The PEL for Propylene oxide is proposed to be changed from 20 ppm (50 mg/M<sup>3</sup>) to 2.0 ppm (4.8 mg/M<sup>3</sup>). The proposed limit is necessary to control harmful upper respiratory effects, and the possibility of nasal cancer that has been observed in several species of laboratory animals. This proposed limit was adopted by the ACGIH in 2001. The ACGIH limit was set based on non-cancer effects observed in laboratory animals. The Advisory Committee considered these effects and relied on a 1994 risk assessment by the United States Environmental Protection Agency (USEPA). This assessment estimated a carcinogenic risk of 1/10000 at 0.03 mg/M<sup>3</sup> for 24 hour-7 day exposure. The Committee estimated that this was equivalent to a 1/1000 risk for an occupational exposure at 0.7 ppm propylene oxide. At the March 30, 2004, advisory meeting, additional scientific and feasibility data was provided that supported the ACGIH TLV level of 2 ppm instead of the Committee's recommended level. The proposed change is necessary to prevent harmful respiratory effects noted above and is supported by the ACGIH document for propylene oxide.

A new PEL for 1,3,5 Triglycidyl-s-triazinetriene is proposed at 0.005 mg/M<sup>3</sup>. This limit is necessary to control reproductive effects seen in laboratory animals and cytotoxic and alkylating capacity seen in human clinical trials for this compound. The proposed limit differs from the 0.05 mg/M<sup>3</sup> TLV adopted by the ACGIH in 1997. The Committee generally agreed with the rationale stated in the documentation for this substance but felt that the limit needed to be lower given the anti-neoplastic properties of this compound and the carcinogenic risk associated with similar chemotherapeutic agents. No further changes to the proposal were recommended during the March 30, 2004, advisory meeting.

A new PEL for Vinylidene fluoride is proposed at 100 ppm (262 mg/M<sup>3</sup>). This limit is necessary to control liver toxicity that has been observed in laboratory animals and is similar to the effect observed with exposure to vinyl chloride and vinylidene chloride. The proposed limit differs from the ACGIH limit of 500 ppm adopted by the ACGIH in 1999. The Committee agreed with the ACGIH that vinylidene fluoride seemed 100 times less potent than vinyl chloride at causing liver toxicity, but recommended a limit of 100 ppm because the current PEL for vinyl chloride is 1 ppm as compared to the ACGIH TLV for vinyl chloride of 5 ppm. No further changes to the proposal were recommended during the March 30, 2004, advisory meeting.

#### DOCUMENTS RELIED UPON

ACGIH Documentation for TLVs printed from "TLVs and Occupational Exposure values-2000", (a compact disk) for the following substances:

Acetone  
Bis (2-Dimethylaminoethyl) Ether (DMAEE)  
Crotonaldehyde  
Epichlorohydrin  
Hexachlorobenzene  
n-Hexane  
Methyl bromide  
Methyl 2-cyanoacrylate  
Methyl Methacrylate  
1,3,5-Triglycidyl-s-triazinetriene  
Vinylidene fluoride

Draft ACGIH document for proposed TLV for Beryllium, 2001

ACGIH document for 2-Butoxyethanol, 2001

ACGIH document for Glutaraldehyde, 2001

ACGIH document for 1-Hexene, 2001

ACGIH document for Molybdenum, 2001

ACGIH document for Propylene oxide, 2001

Federal Register, Volume 48, No. 15, pages 2764-2768, January 21, 1983, Occupational Exposure to Coal Tar Pitch Volatiles; Modification of Interpretation

Nelson, K. W., et al, Sensory response to certain industrial solvent vapors. *Journal of Industrial Hygiene and Toxicology*, 25(7), 282-285 (Sept. 1943)

Kreiss, K., et al, Machining risk of beryllium disease and sensitization with median exposures below 2 ug/m<sup>3</sup>. *American Journal of Industrial Medicine*, 30:16-25 (1996)

Eisenbud, M, et al, Non-occupational berylliosis. *Journal of Industrial Hygiene and Toxicology*, Vol. 31, pp. 282-294, Sept 1949

Carpenter, C. P., et al, The toxicity of butyl cellosolve solvent. *A. M. A. Archives of Industrial Health*, 14:114-131 (April 1956)

Chan P. C., et al, Lung tumor induction by inhalation exposure to molybdenum trioxide in rats and mice. *Toxicological Sciences*, 45:58-65 (1998)

Propylene oxide risk assessment, The United States Environmental Protection Agency Integrated Risk Information System (IRIS) 04/01/1994



Letter from Thomas E. Tremble, Advanced Medical Technology Association, dated November 18, 2004, regarding glutaraldehyde

Letter from Susan D. Ripple, The Dow Chemical Company, dated November 19, 2004, regarding glutaraldehyde

Glutaraldehyde Feasibility Summary, submitted by the California Dental Association, November 2004

These documents are available for review from 8:00 a.m. to 4:30 p.m. at the Standards Board Office located at 2520 Venture Oaks, Suite 350, Sacramento, California.

#### DOCUMENTS INCORPORATED BY REFERENCE

None.

#### REASONABLE ALTERNATIVES THAT WOULD LESSEN ADVERSE IMPACT ON SMALL BUSINESSES

No reasonable alternatives were identified by the Board and no reasonable alternatives identified by the Board or otherwise brought to its attention would lessen the impact on small businesses.

#### SPECIFIC TECHNOLOGY OR EQUIPMENT

This proposal does not mandate the use of specific technologies and equipment.

#### COST ESTIMATES OF PROPOSED ACTION

The subject proposal is a revision of an existing standard which specifies airborne exposure limits for chemical substances. The primary users of these substances are the private industrial and chemical sectors. The exposure limits proposed are consistent with recommendations of the American Conference of Governmental Industrial Hygienists or with scientific findings of which professional health and safety staff and consultants of these entities should be aware. Many of these entities already seek to control employee exposures to these levels in the interest of business continuity and minimization of tort and workers compensation liability. Therefore, the additional expenditures for these entities to comply with the revised standard are estimated to be insignificant to none.

#### Costs or Savings to State Agencies

No significant costs or savings to state agencies is anticipated to result as a consequence of the proposed action.

#### Impact on Housing Costs

The Board has made an initial determination that this proposal will not significantly affect housing costs.

Impact on Businesses

The Board has made an initial determination that this proposal will not result in a significant, statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states.

Cost Impact on Private Persons or Businesses

The Board is not aware of any cost impact that a representative private person or business would necessarily incur in reasonable compliance with the proposed action.

Costs or Savings in Federal Funding to the State

The proposal will not result in costs or savings in federal funding to the state.

Costs or Savings to Local Agencies or School Districts Required to be Reimbursed

No costs to local agencies or school districts are required to be reimbursed. See explanation under “Determination of Mandate.”

Other Nondiscretionary Costs or Savings Imposed on Local Agencies

This proposal does not impose significant nondiscretionary costs or savings on local agencies.

DETERMINATION OF MANDATE

The Occupational Safety and Health Standards Board has determined that the proposed standard does not impose a local mandate. Therefore, reimbursement by the state is not required pursuant to Part 7 (commencing with Section 17500) of Division 4 of the Government Code because the proposed amendments will not require local agencies or school districts to incur additional costs in complying with the proposal. Furthermore, the standard does not constitute a “new program or higher level of service of an existing program within the meaning of Section 6 of Article XIII B of the California Constitution.”

The California Supreme Court has established that a “program” within the meaning of Section 6 of Article XIII B of the California Constitution is one which carries out the governmental function of providing services to the public, or which, to implement a state policy, imposes unique requirements on local governments and does not apply generally to all residents and entities in the state. (County of Los Angeles v. State of California (1987) 43 Cal.3d 46.)

The proposed standard does not require local agencies to carry out the governmental function of providing services to the public. Rather, the standard requires local agencies to take certain steps to ensure the safety and health of their own employees only. Moreover, the proposed standard does not in any way require local agencies to administer the California Occupational Safety and Health program. (See City of Anaheim v. State of California (1987) 189 Cal.App.3d 1478.)

The proposed standard does not impose unique requirements on local governments. All state, local and private employers will be required to comply with the prescribed standards.

#### EFFECT ON SMALL BUSINESS

The Board has determined that the proposed amendments may affect small businesses. However no adverse economic impact is anticipated.

#### ASSESSMENT

The adoption of the proposed amendments to the standard will neither create nor eliminate jobs in the State of California nor result in the elimination of existing businesses or create or expand businesses in the State of California.

#### ALTERNATIVES THAT WOULD AFFECT PRIVATE PERSONS

No reasonable alternatives have been identified by the Board or have otherwise been identified and brought to its attention that would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the proposed action.